

DOCKET FILE COPY ORIGINAL

Original  
RECEIVED

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

NOV - 5 1995

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the matter of

DOCKET FILE COPY ORIGINAL

Amendment of Part 90 of the Commission's Rules  
to Facilitate Future Development of SMR Systems  
in the 800 MHz Frequency Band

PR Docket No. 93-144  
RM-8117, RM-8030  
RM-8029

and

Implementation of Section 309(j) of the  
Communications Act - Competitive Bidding  
800 MHz SMR

PP Docket No. 93-253

To: **The Commission**

**COMMENTS OF  
SPECTRUM RESOURCES, INC.**

Spectrum Resources, Inc. ("SRI"), pursuant to Section 1.415(a) of the Federal Communication's ("FCC" or "Commission") rules and regulations, hereby respectfully submits its comments to the Further Notice of Proposed Rule Making ("Further Notice") in the above-styled proceeding.<sup>1</sup>

**I. INTRODUCTION**

Spectrum Resources, Inc. was founded in 1991 and provides consulting engineering services, and management of mobile communications spectrum. Principal services provided by SRI include: assistance to Specialized Mobile Radio (SMR) operators seeking to expand their

<sup>1</sup> Further Notice of Proposed Rules Making (FCC 94-271), PR Docket NO. 93-144 and PP Docket No. 93-253, 59 F.R. 60112 (November 22, 1994). The Comment Period was extended by Order (DA 94-1326) adopted November 28, 1994 until January 5, 1995 and the Reply Comment period was extended until January 20, 1995.

No. of Copies rec'd  
List ABCDE

244

systems through the acquisition of additional channels; acquisition of spectrum for developers of emerging communications technologies building regional or nationwide networks; and Enhanced SMR (ESMR) system design and FCC licensing.

SRI also operates and manages SMR systems. SRI has obtained, through direct licensing, acquisitions, and management agreements, a significant number of 800 MHz licenses throughout the country.

The Commission seeks comments on a myriad of issues pertaining to the licensing, construction, and operation of Specialized Mobile Radio ("SMR") stations. Specifically the Commission proposes to allocate 10 MHz of 800 MHz spectrum currently allocated to "local" SMR operations ("Contiguous 800 MHz SMR Channels")<sup>2</sup> for the licensing of wide-area SMR networks and revisiting the licensing of "local" SMR stations on the remaining 4 MHz spectrum currently allocated for SMR operations ("Non-Contiguous 800 MHz SMR Channels").<sup>3</sup> SRI believes that the Commission should structure the new 800 MHz SMR licensing plan to best benefit the general public, and to balance the affect of its licensing plan so that neither the incumbent SMR licensee nor the MTA-based wide-area SMR license are so adversely affected that the dynamic and vigorous SMR industry is unable to compete with other wireless telecommunications providers.

SRI's comments focus on two aspects of the Commission's proposal: (1) the handling of the relocation of incumbent licenses authorized to operate on Contiguous 800 MHz SMR Channels, and (2) the licensing of the Non-Contiguous 800 MHz Channels and the 150 General

---

<sup>2</sup> The spectrum in the 816-821/861-865 MHz.

<sup>3</sup> In the 811-816/856-860 MHz band, there are 80 paired frequencies within the band allocated for SMR operations.

Category Channels. SRI takes no position on the other aspects of the proposals contained within the Further Notice.

## **II. DISCUSSION**

The Commission's proposal to re-allocate the Contiguous 800 MHz SMR Channels has generated much controversy in the SMR industry. There is a concern by many incumbent licensees that they will lose the value which they have built in their businesses or be unable to expand their businesses. On the other hand, persons wishing to achieve the greater flexibility and more competitive position of obtaining a MTA-based SMR license are concerned that the continued operation of incumbent licensees in the spectrum will prevent the implementation of newer technologies and may prevent the flow of capital to the companies which is necessary to construct the newer digital infrastructure. SRI believes that its suggested relocation plan and licensing of the Non-Contiguous 800 MHz SMR Channels and General Category Channels will achieve a balance between the concerns and permit both the incumbent licensee to expand its business without burdensome disruptions, and the MTA-based SMR licensee to obtain the "clear" spectrum to implement the newer technologies and become more competitive with cellular or broadband PCS providers. This increase in the number of wireless telecommunications providers will substantially benefit the public interest and achieve the Commission's goals to promote competition, create an economic incentive to develop new telecommunications services, and generate the highest revenues from the auction (should it be necessary).

SRI, therefore, recommends that (1) the Commission adopt a mandatory relocation requirement to require the relocation of incumbent SMR licenses which do not acquire an

MTA-based license and (2) allow, but not require, a licensing plan for General Category and non-contiguous frequencies which would allow the consolidation of channels and implementation of new technologies in these bands as well.

**A. Mandatory Relocation Requirements Are Necessary**

Contrary to the Commission's proposal that no mandatory relocation be adopted, SRI submits that mandatory relocation is required, for reasons set forth below.

One purpose of the revisions to the licensing of the 800 MHz SMR spectrum is to achieve "regulatory parity" with the cellular service and broadband PCS. Under the cellular and broadband PCS rules, a licensee may move, add, and remove internal, non-boundary facilities without pre-approval by the Commission. This flexibility allows these licensees to dynamically adjust the coverage of the system based on the needs of the consumer, and without additional costs associated with the administrative requirements of application preparation and follow-up. As can be seen, under the Commission's proposal, without relocation of incumbent licensees, the MTA-based licensee will not have such flexibility because it will have internal boundary restrictions. With co-channel licensees throughout the MTA, the MTA-based licensee may be continually required to obtain Commission approval, and will not have the flexibility to conform its system to the end user requirements. However, with the clearing of the 200 channels, the planning and implementation of the wide-area system will be simplified and result in a smaller investment in the infrastructure, which will translate to lower costs to the general public. Thus, with the relocation of incumbent licensees the MTA-based license will be able to provide competition to cellular or PCS systems.

The intensive manner in which the existing TDMA technology utilizes the spectrum, allowing six or more times the number of users per channel than the current analog systems, also render the TDMA system more susceptible to interference from high-power, high-elevation transmitters on co-channel and adjacent channels, which are using the frequencies less efficiently relative to TDMA. The solution is to eliminate the interstitial sharing of the band, by moving the high-power users to comparable spectrum, which in no way diminishes the high-power users' ability to offer and provide service. More importantly, the relocation of high-power users will allow the future implementation of wideband technologies, such as spread spectrum CDMA, which have a number of technical advantages, and can support future high-speed data traffic such as mobile transmission of video and other high data rate services.

The Commission must consider that the development of new technologies is costly, and the construction of the infrastructure able to provide better, competitive wireless communications to the consumer must be financed. Contiguous "clear" spectrum in the 800 MHz spectrum will provide confidence to investors that the system can provide service and that the investor can recoup his or her investment. Without such confidence, the establishment of competitive SMR services may not be adequately funded and may result in elimination of a needed telecommunications option.

We believe that mandatory relocation offers a win-win-win scenario. The MTA-based licensee gets something of real value. The incumbent licensees have a viable exit strategy and flexibility to "grow-out" similar wide-area systems on the other non-contiguous channels. The Commission and the public interest win due to the resulting higher auction revenues created by a more valuable spectrum assignment plan.

Finally, mandatory relocation would eliminate the creation of "greenmail" situations where incumbent licensees try to extract exorbitant prices for their licenses from the MTA-based licensees. With voluntary relocation, the negotiations between incumbent licensees and MTA-based licensees would be extremely time consuming, which would impede the development of wide-area digital technology SMR systems. Moreover, we do not believe it would even be feasible for the MTA-wide licensee to attempt to clear off all contiguous channels nationwide. Implementing wideband technology is an "all or nothing" proposition, therefore the stumbling blocks imposed by "greenmailers" would not only foreclose the potential benefits of new technology to the public, but would negatively impact other incumbent SMR operators who want to either sell-out or relocate for economic gain.

**B. Mandatory Relocation Proposal**

SRI recommends that the Commission adopt the following mandatory relocation proposal:

An incumbent licensee would have three options, or a combination of the three options:

1. Relocation to other 800 MHz spectrum. This option is similar to the relocation requirements adopted in the PCS proceeding in that the MTA-based licensee would be required to "re-tune" the incumbent licensee's system, including all end-user radios, to other frequencies with comparable facilities within the 800 MHz spectrum, cost-free to the incumbent licensee.
2. Relocation to 900 MHz spectrum. This option would require that the Commission provide for the licensing by incumbent licensees either by direct licensing or assignment of any available 900 MHz channels on a two-for-one basis, i.e., an incumbent licensee could obtain two 900 MHz channels for each 800 MHz channel for which it agrees to provide the MTA-based

licensee. This would be on a first-come, first-serve basis, which should provide incentive to incumbent licensees to relocate as quickly as possible.

3. MTA-Based Licensee Buys Incumbent Licensee's System(s). The MTA-based licensee would be required to make a good-faith offer for the purchase of the incumbent licensee's system. The incumbent licensee would then be allowed to either take the offer or relocate under options 1 or 2, or both. There would be no requirement that the incumbent licensee sell its system.

The buy-out offer would be a formula adopted by the FCC, which would be based on past and current SMR transactions, utilizing a "common denominator" of a multiple of current revenues, or a certain number of dollars per channel per population served (Dollars/Pop), whichever is greater. Thus, the buy-out offer would be uniform on a nationwide basis. In the revenue multiple model, no cash flow accounting is considered--simply gross recurring revenues times the multiplier. The Dollar/Pop model assumes 200 channels in a market to reach the valuation. For each channel, the number of pops within a certain radius of its primary site would be computed. Then that number would be multiplied by the value (in dollars/pop) divided by 200 channels, and that amount is what the licensee of the channel(s) would be paid for its system. The Commission would adopt the radius to be used for purposes of the calculation, and this would be uniform throughout the country. SRI suggests using a 35-mile radius, as this radius is generally accepted as an average service area of a station. A methodology for counting pops within the station's radius would have to be defined by the Commission, but would not be difficult to implement. SRI suggests using any one of several inexpensive mapping programs

commercially available, employing high resolution data available from the Bureau of Census, and analyzing it at the level of individual census tracts.

Finally, we believe a time frame of three years should be adopted for the mandatory transition to occur. This would give all parties time and flexibility to adjust and to accommodate one another's particular needs.

### **III. CONCLUSION**

For the reasons set forth above, SRI urges the Commission to adopt a mandatory relocation requirement for the "clearing" of the Contiguous 800 MHz SMR Channels to be licensed on an MTA basis. SRI suggests three options which the affected licensee may choose for relocation. SRI believes that its proposal will be in the best interest of the public and will achieve the Commission's goals in this proceeding.

RESPECTFULLY SUBMITTED,

SPECTRUM RESOURCES, INC.

By: A.C. Miller  
Name: A.C. Miller  
Title: President

307 Annandale Road, Suite 101  
Falls Church, VA 22042  
(703) 533-1312

Date: January 5, 1995